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08/568,777 12/07/95 SMITH

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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Paper No. 11

Application Number: 08/568,777

DEC 2 1990

Filing Date: 12/7/95

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Appellant(s): Ronald L Smith et al

(Continued)

Ronald O. Neerings  
For Appellant

**EXAMINER'S ANSWER**

This is in response to appellant's brief on appeal filed 3/27/98.

**(1) Real Party in Interest**

A statement identifying the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

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A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3)     *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4)     *Status of Amendments After Final***

No amendment after final has been filed.

**(5)     *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6)     *Issues***

The appellant's statement of the issues in the brief is correct.

**(7)     *Grouping of Claims***

The rejection of claims 1-29 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

**(8)     *ClaimsAppealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9)     *Prior Art of Record***

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

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4,912,756	HOP	3-1990
5,581,597	DENT	12-1996
5,020,090	MORRIS	5-1991

**(10) *Grounds of Rejection***

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 13, 15-17 and 19-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Hop, U.S. Patent No. 4,912,756.

Regarding claims 1,7,13 and 29; Hop discloses a system using a personal computer to effectuate reliable data transmission over a cellular telephone system as illustrated in Figure 1. Element 19 is referred to as the mobile unit and is comprised of a portable PC (element 2), interface circuit (element 3, cellular ,connector (element 28) and CSE (Cellular subscriber equipment). Regarding claim 12; Hop shows a modem explicitly as element 24 in Figure 2.

Regarding claims 2,3,4,5,6; in the information processing and data communications arts, a computer inherently contains a data processor, memory or data and programs such as an operating system, input means (commonly a keyboard) and output means such as a display

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(LCD, monitor etc.). Hop does not explicitly show these features (except for the display in Figure 2), nevertheless the features are inherent in Hop's disclosure.

Regarding claims 15-17,19-28; these claims refer to the leads or lines between the interface and the microprocessor. The claims refer to voice channel leads, command channel leads, and a ground lead. Claim 16,17 and 20 also refer to the facilitation of a bidirectional half duplex mode. Claims 23,25 and 27 also refer the facilitation of a unidirectional full duplex mode. Hop discloses the connection of the interface to the computer via the COM1 port in figure 2. COM1 is disclosed as a conventional RS232 to which a bidirectional serial bus is connected (col. 4, line 36-39). The RS232(-C) industry standard calls for a 25 pin Connector including 2 data/voice lines and a variety of control (command) lines which facilitate either bidirectional half-duplex mode or unidirectional full-duplex mode.

#### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. As stated in the previous office action; claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hop.

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Claims 8,9,10,11 refer the positioning and securing of the portable telephone to a "cavity". Hop does not refer to a cavity or receptacle for the portable telephone in his disclosure, however Hop discloses, directly and indirectly, mobility and portability in his system. For example, he refers to "mobile unit" throughout his specification. The choice of how the portable telephone housing and computer/interface housing fit together is dependent upon a number of factors such as ease of use or access to telephone independently of the computer, intended dimension (e.g. to fit inside a standard sized briefcase, in an airplanes overhead bin, etc.) and the particular configuration of the components is a matter of which factor(s) are more important to the intended end-user.

As stated in the previous office action; claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hop in view of Dent et al., U.S. Pat. No. 5,581,597. Claim 18 refers the interface as having a power lead. Hop does not disclose such a power lead however Dent discloses in col. 8, lines 52-57 the use of a cellular terminal(such as a cellular telephone) plugged into a personal computer. While the cellular terminal is "parked" (i.e. plugged in), it may be powered from a power supply through leads as shown in figure 3. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make to provide power to the cellular telephone while in use to transmit or receive data for the computer to prevent depleting the cellular telephone's battery unnecessarily. Failure of the battery without an alternate power supply would cause interruption of the data transmission and reception via the cellular telephone.

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Claims 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hop in view of Morris, U.S. Patent No. 5,020,090.

Claim 12 refers to the modem as being internal to the computer; Hop discloses a modem (element 24) in combination with the Portable PC in fig. 2 but does not specifically indicate that the modem is internal to the computer. Morris shows a portable computer which connects via a track mechanism in fig.1. The abstract refers to the "modem in the computer" and the Morris' claims 1 and 8 refer to a "computer having ... a modem". In the portable computer art, size is a critical factor in order to render the computer "portable"; it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the modem in the computer to reduce the size of the system.

Claim 14 refers to transmitting voice and data signals while the telephone and computer are connected. As stated above, Hop discloses COM1 as a conventional RS232 to which a bidirectional serial bus is connected (col. 4, line 36-39). The RS232(-C) industry standard calls for a 25 pin connector including 2 data/voice lines and a variety of control (command) lines which facilitate either bi-directional half-duplex mode or unidirectional full-duplex mode. The purpose of Hop is to provide data communications between two computer systems via a cellular telephone system.

Regarding the arguments pertaining to claims 1 and 29 that the interface is "directly connectable"; the term "interface" is extremely broad and can be interpreted as a wide variety of devices and components including a combination of circuits, cables etc.

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Regarding the arguments pertaining to claims 3, 4, 5, 6 and elements display, keyboard, memory and core logic; applicant himself cites case law (Page 2 line 2) refer to prior art having elements "inherently described". As stated above and in the previous office action; "in the information processing and data communications arts, a computer inherently contains a data processor, memory or data and programs such as an operating system, input means (commonly a keyboard) and output means such as a display (LCD, monitor etc.). Hop does not explicitly show these features (except for the display in figure 2), nevertheless the features are inherent in Hop's disclosure".

Regarding the Argument pertaining to claim 7; Hop repeatedly refers to his computer as being a "portable PC", e.g. Col. 1, line 66.

Regarding the arguments pertaining to claims 13-28 pertaining to the leads (voice channel, ground, etc.), the modes (unidirectional full duplex, bidirectional half duplex), and voice and data communications; as stated above Hop discloses COM1 as a conventional RS232 to which a bidirectional serial bus is connected (col. 4, line 36-39). The RS232(-C) industry standard (*by definition*) calls for a 25 pin connector including 2 data/voice lines and a variety of control (command) lines which facilitate either bidirectional half-duplex mode or unidirectional full-duplex mode. The purpose of Hop is to provide data communications between two computer systems via a cellular telephone system.

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Regarding the argument pertaining to claims 8-11 and the location of the portable telephone; in the portable telephone and portable computer arts: Portable (*by definition*) refers to concept of the item being carried, hence size, weight and dimensions are critical factors inherent in the design of portable telephones and computers and would necessarily be considered by one of ordinary skill in the art. Placing the telephone in a "cavity" of the computer would be desirable to minimize size and dimensions.

In addition, applicants are encouraged to review Morris in detail because the teachings of Morris are extremely relevant to details in the applicants specification.

**(11) Response to Argument**

In regards to applicants argument that Hop does not teach the interface of the microprocessor being directly connectable to a corresponding interface in a portable telephone. The interface of Hop portable computer is interface (3 and 28) which is **directly connectable** to the portable telephone (4). The definition of an interface is "a common boundary between two systems or pieces of equipment where they are joined" interface (3 and 28) is directly connected to unit (4). The location on unit 4 where it connects to interface (3 and 28) is its interface. The examiner notes the applicants own arguments show where Hop teaches the handset is plugged into the interface of the computer (Column 5 lines 10-13). Again Hop's portable telephone is clearly directly connectable to the computer.

In regards to applicants argument that Hop teaches an apparatus with four physically separate devices. This is correct yet these four devices are connected together to form a

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computer system. The examiner notes that there is nothing in the claim language requiring the four devices to be physically one device. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In regards to applicants argument regarding claims 2, 5 and 6 that Hop fails to teach the portable computer having a keyboard, memory and core logic. The examiner agrees. Hop however does expressly teach that the computer is a portable personal computer . A keyboard, memory such as main system memory and core logic such as bios control logic are inherent features of portable personal computers.

In regards to applicants argument regarding claims 3 and 4 that Hop fails to teach the portable computer having a display. Stating that the examiner admits Hop fails to show this limitation. The current examiner has read the previous examiners action and can find no indication that the previous examiner admitted this feature was not taught by Hop. The previous examiner stated a display was an inherent feature of a portable personal computer. This statement is correct. Hop also expressly teaches a display figure 2 which was previously pointed out.

In regards to applicants argument regarding claims 7 and 12: The examiner thanks the applicant for admitting that Hop teaches these features.

In regards to applicants argument regarding claims 13, 14 and 15: It is unclear as to what feature the applicants are alleging that Hop fails to teach. Hop expressly teaches

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transmitting and receiving voice and data/command (Figure 3 Audio TX, Audio RX Tdata, Cdata, and Rdata). Hop also teaches at least one Ground (Audio GND and Digital GND).

In regards to applicants argument regarding claims 16, 17, 21, 23, 25 and 27 that Hop fails to teach bidirectional half-duplex mode and full-duplex mode. The RS232 industry standard (*by definition*) calls for a 25 pin connector including 2 data/voice lines and a variety of control (command) lines which facilitate either bidirectional half-duplex mode or unidirectional full-duplex mode. Hop expressly teaches that COM1 and COM2 are RS232 ports. Thus Hop teaches bidirectional half-duplex mode and full-duplex mode as is required by the RS232 standard.

In regards to applicants argument regarding claim 19 that Hop fails to teach the at least one voice channel lead (See figure 3 Audio TX)

In regards to applicants argument regarding claim 20 that Hop fails to teach at least one data channel lead (See figure 3 Tdata Cdata and Rdata).

In regards to applicants argument regarding claim 22 that hop fails to teach a second voice channel lead (See Figure 3 Audio RX).

In regards to applicants argument regarding claims 24 and 26 that Hop fails to teach a second command channel lead (See figure 3 Tdata, Cdata or Rdata).

In regards to applicants argument regarding claim 28 that Hop fails to teach voice and data are transmitted on said voice channel leads. Hop teaches a modem. Modem stands for MOdulator, DEModulator and a modems purpose is to modulate data so that it can be placed

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on Voice lines and demodulate data off of voice lines. Hop expressly states that the modem is coupled to the computer and the mobile telephone. Thus Hop's modem inherently does the function for which it is named and places data on the voice lines.

In regards to applicants argument regarding claims 8-11 that Hop fails to teach the telephone being placed within a cavity of the computer. This is simply a matter of obvious design choice. The physical location or shape of the system provides no added functionality to the system. See *In re Seid*, 161 F.2d 229, 73 USPQ 431 (CCPA 1947). While the claim is not rejected over Hop in view of Morris the examiner would suggest applicants consider Morris for this claimed shape.

In regards to applicants argument that the examiner has failed to provide any evidence to show that anyone would have been motivated to modify the shape of hop to include this cavity for the telephone. The motivation provided for including a cavity for the telephone to fit into was given as to allow the system (this includes both the computer and telephone) to fit within an ordinary briefcase.

In regards to applicants argument that there must be some teaching, suggestion or incentive to make the combination made by the inventor and the Applicants have clearly shown that there is no teaching, suggestion, or incentive in the prior art to make the combination made by applicants. Emphasis added by examiner the test of the obviousness is:

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"whether the teachings of the prior art, taken as a whole, would have made obvious the claimed invention.". As shown in *In re Gorman*, 933 F. 2d at 986, 18 USPQ2d at 1888.

Subject matter is unpatentable under section 103 if it "'would have been obvious .... to a person having ordinary skill in the art.' While there must be some teaching, reason, suggestion, or motivation to combine existing elements to produce the claimed device, it is not necessary that the cited references or prior art specifically suggest making the combination." As shown in *In re Nilssen*, 851 F. 2d 1401, 1403, 7 USPQ2d 1500, 1502 (Fed. Cir. 1988).

Such suggestion or motivation to combine prior art teachings can derive solely from the existence of a teaching, which one of ordinary skill in the art would be presumed to know, and the use of that teaching to solve the same [or] similar problem which it addresses." As shown in *In re wood*, 599 F. 2d 1032, 1037, 202 USPQ 171, 174 (CCPA 1979).

"In sum, it is off the mark for litigants to argue, as many do, that an invention cannot be held to have been obvious unless a suggestion to combine prior art teachings is found *in a specific reference*." As shown in *In re Oetiker*, 24 USPQ2d 1443 (CAFC 1992).

Accordingly, is not required to disclose or specifically suggest particular elements. Instead the measure is what the teachings of the reference would suggest to one of ordinary skill in the art, not what the reference specifically suggests.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so

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long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In regards to applicants argument regarding claim 18: While the current examiner disagrees whit the previous examiner that the Dent reference was even needed in that Hop expressly shows a 9.5v power lead. However Dent does expressly teach a telephone unit that is attachable to a portable computer that has its own power lead. And teaches separately powering the telephone unit with its own power lead. It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide a separate power lead for the telephone unit because this would have saved battery life of the portable computer when the telephone was to be used separately. The examiner also notes that claim 18 only requires there to be a power lead there is no statement as to what the power lead is for or where it gets its power from as such Hop alone was sufficient.

In regards to applicants arguments regarding claims 12 and 14: these arguments were treated in regards to claim 1 above. The examiner also notes the applicants did not even consider the morris reference which expressly teaches the features the applicant argues are not taught by Hop such as the computer modem and interface all being one unit. And the telephone being in a cavity of the computer. In response to applicant's arguments against the

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references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). See also *In re Larson*, 340 F.2d 965, 144 USPQ 347, 349 (CCPA 1965). For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

PRM  
December 17, 1998

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